

10/581,034

Connecting via Winsock to STN

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LOGINID:sssptal201txs

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 MAY 01 New CAS web site launched
NEWS 3 MAY 08 CA/CAPLUS Indian patent publication number format defined
NEWS 4 MAY 14 RDISCLOSURE on STN Easy enhanced with new search and
display
fields
NEWS 5 MAY 21 BIOSIS reloaded and enhanced with archival data
NEWS 6 MAY 21 TOXCENTER enhanced with BIOSIS reload
NEWS 7 MAY 21 CA/CAPLUS enhanced with additional kind codes for German
patents
NEWS 8 MAY 22 CA/CAPLUS enhanced with IPC reclassification in Japanese
patents
NEWS 9 JUN 27 CA/CAPLUS enhanced with pre-1967 CAS Registry Numbers
NEWS 10 JUN 29 STN Viewer now available
NEWS 11 JUN 29 STN Express, Version 8.2, now available
NEWS 12 JUL 02 LEMBASE coverage updated
NEWS 13 JUL 02 LMEADLINE coverage updated
NEWS 14 JUL 02 SCISEARCH enhanced with complete author names
NEWS 15 JUL 02 CHEMCATS accession numbers revised
NEWS 16 JUL 02 CA/CAPLUS enhanced with utility model patents from China
NEWS 17 JUL 16 CAPLUS enhanced with French and German abstracts
NEWS 18 JUL 18 CA/CAPLUS patent coverage enhanced
NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 20 JUL 30 USGENE now available on STN
NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags
NEWS 22 AUG 06 BEILSTEIN updated with new compounds
NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition
NEWS 24 AUG 13 CA/CAPLUS enhanced with additional kind codes for granted
patents
NEWS 25 AUG 20 CA/CAPLUS enhanced with CAS indexing in pre-1907 records
NEWS 26 AUG 27 Full-text patent databases enhanced with predefined
patent family display formats from INPADOCDB
NEWS 27 AUG 27 USPATOLD now available on STN
NEWS 28 AUG 28 CAS REGISTRY enhanced with additional experimental
spectral property data

10/581,034

NEWS 29 SEP 07 STN AnaVist, Version 2.0, now available with Derwent
World Patents Index

NEWS 30 SEP 13 FORIS renamed to SOFIS

NEWS 31 SEP 13 INPADOCDB: New SDI frequency MONTHLY available now

NEWS EXPRESS 05 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 05 SEPTEMBER 2007.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS LOGIN Welcome Banner and News Items

NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 20:28:06 ON 14 SEP 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 20:28:19 ON 14 SEP 2007

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STRUCTURE FILE UPDATES: 13 SEP 2007 HIGHEST RN 947061-18-9

DICTIONARY FILE UPDATES: 13 SEP 2007 HIGHEST RN 947061-18-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information

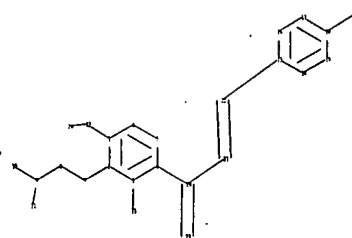
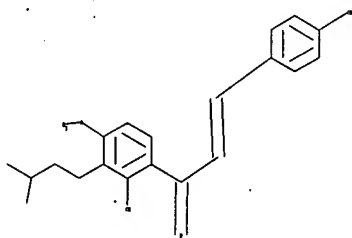
10/581,034

on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10581034.str



chain nodes :

7 8 9 10 11 12 13 20 21 22 23 24 26

ring nodes :

1 2 3 4 5 6 14 15 16 17 18 19

chain bonds :

1-13 2-7 3-12 6-20 7-8 8-9 9-10 9-11 12-26 15-22 18-24 20-21
20-23 21-22

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 14-15 14-19 15-16 16-17 17-18 18-19

exact/norm bonds :

1-13 3-12 12-26 18-24 20-23

exact bonds :

2-7 6-20 7-8 8-9 9-10 9-11 15-22 20-21 21-22

normalized bonds :

10/581,034

1-2 1-6 2-3 3-4 4-5 5-6 14-15 14-19 15-16 16-17 17-18 18-19
isolated ring systems :
containing 1 : 14 :

G1:H,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom
18:Atom 19:Atom 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS
26:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 20:28:39 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 71 TO ITERATE

100.0% PROCESSED 71 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 915 TO 1925
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 20:28:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1745 TO ITERATE

100.0% PROCESSED 1745 ITERATIONS 11 ANSWERS
SEARCH TIME: 00.00.01

L3 11 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	172.10	172.31

FILE 'CAPLUS' ENTERED AT 20:28:53 ON 14 SEP 2007
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10/581,034

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FILE COVERS 1907 - 14 Sep 2007 VOL 147 ISS 13
FILE LAST UPDATED: 13 Sep 2007 (20070913/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 13

L4 16 L3

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
2.82	175.13

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 20:32:17 ON 14 SEP 2007
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STRUCTURE FILE UPDATES: 13 SEP 2007 HIGHEST RN 947061-18-9
DICTIONARY FILE UPDATES: 13 SEP 2007 HIGHEST RN 947061-18-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

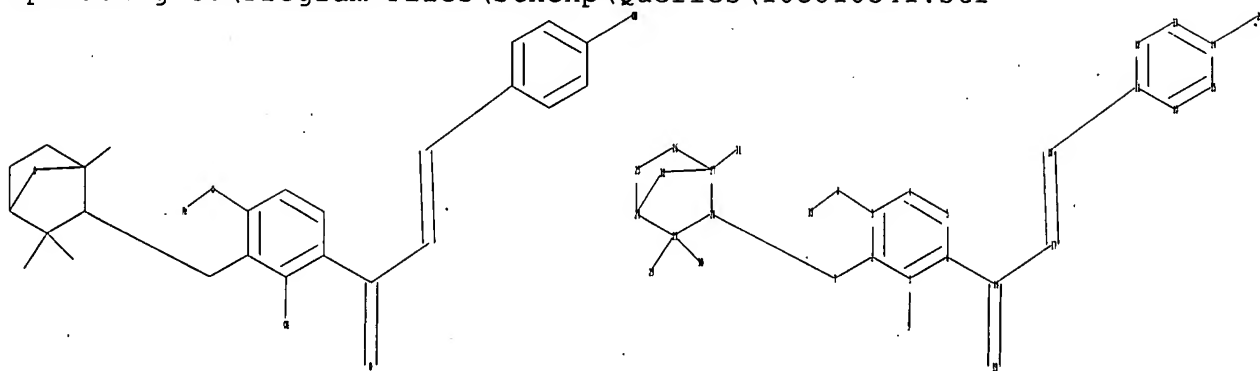
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

10/581,034

Uploading C:\Program Files\Stnexp\Queries\105810341.str



chain nodes :

7 8 9 16 17 18 19 20 29 30 31 33

ring nodes :

1 2 3 4 5 6 10 11 12 13 14 15 23 24 25 26 27 28 32

chain bonds :

1-9 2-7 3-8 6-16 7-28 8-33 11-18 14-20 16-17 16-19 17-18 23-29
23-30 27-31

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15
23-24 23-28 24-25 24-32 25-26 26-27 27-28 27-32

exact/norm bonds :

1-9 3-8 14-20 16-19 23-24 23-28 24-25 24-32 25-26 26-27 27-28
27-32

exact bonds :

2-7 6-16 7-28 8-33 11-18 16-17 17-18 23-29 23-30 27-31

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 10-11 10-15 11-12 12-13 13-14 14-15

isolated ring systems :

containing 1 : 10 :

G1:H,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 23:Atom 24:Atom 25:Atom 26:CLASS 27:Atom
28:Atom 29:CLASS 30:CLASS 31:CLAPage 6:Atom 33:CLASS

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L5 STRUCTURE UPLOADED

=> s 15

SAMPLE SEARCH INITIATED 20:32:37 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 0 TO 0

PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

=> s 15 ful

FULL SEARCH INITIATED 20:32:44 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L7 1 SEA SSS FUL L5

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

172.10

347.23

FILE 'CAPLUS' ENTERED AT 20:32:51 ON 14 SEP 2007

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FILE COVERS 1907 - 14 Sep 2007 VOL 147 ISS 13

FILE LAST UPDATED: 13 Sep 2007 (20070913/ED)

10/581,034

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

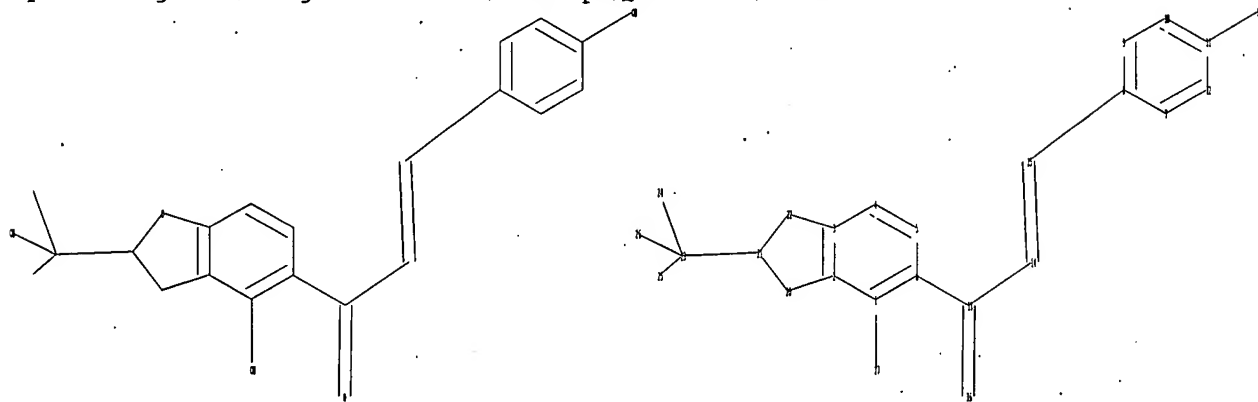
<http://www.cas.org/infopolicy.html>

=> s 17

L8 3 L7

=>

Uploading C:\Program Files\Stnexp\Queries\105810342.str



chain nodes :

13 14 15 16 17 23 24 25 26 27

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 20 21 22

chain bonds :

1-27 6-13 8-15 11-17 13-14 13-16 14-15 21-23 23-24 23-25 23-26

ring bonds :

1-2 1-6 2-3 2-20 3-4 3-22 4-5 5-6 7-8 7-12 8-9 9-10 10-11

11-12 20-21 21-22

exact/norm bonds :

1-27 11-17 13-16 23-26

exact bonds :

2-20 3-22 6-13 8-15 13-14 14-15 20-21 21-22 21-23 23-24 23-25

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

10/581,034

isolated ring systems :
containing 1 : 7 :

G1:H,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS
27:CLASS

L9 STRUCTURE UPLOADED

=> s 19

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 20:38:21 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**

PROJECTED ITERATIONS: 1 TO 80
PROJECTED ANSWERS: 0 TO 0

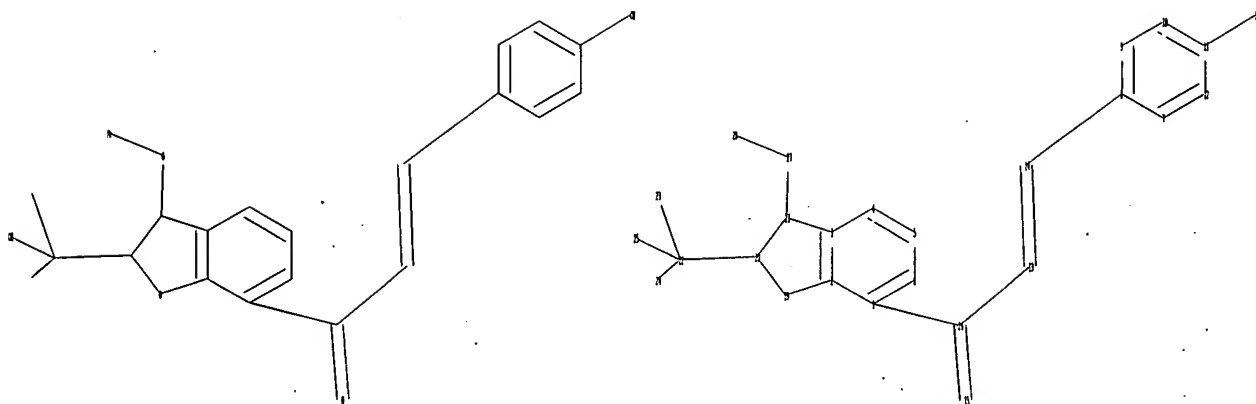
L10 0 SEA SSS SAM L9

L11 0 L10

=>

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chain nodes :

13 14 15 16 22 23 24 25 26 27 28

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 19 20 21

chain bonds :

1-26 8-14 11-16 13-14 13-26 15-26 20-22 21-27 22-23 22-24 22-25
27-28

ring bonds :

1-2 1-6 2-3 2-19 3-4 3-21 4-5 5-6 7-8 7-12 8-9 9-10 10-11
11-12 19-20 20-21

exact/norm bonds :

11-16 15-26 21-27 22-25

exact bonds :

1-26 2-19 3-21 8-14 13-14 13-26 19-20 20-21 20-22 22-23 22-24
27-28

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

isolated ring systems :

containing 1 : 7 :

G1:H,CH3

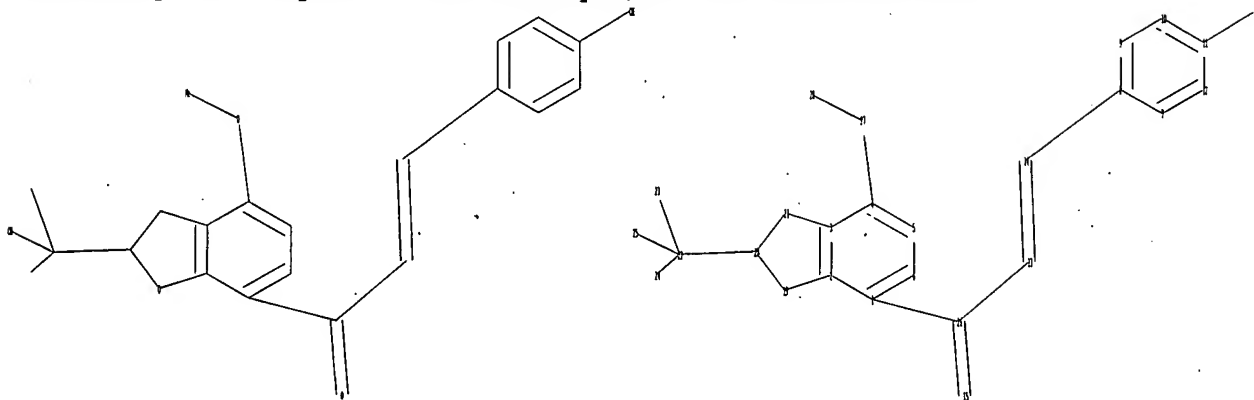
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 19:Atom
20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS
27:CLASS 28:CLASS

L12 STRUCTURE UPLOADED

=>

Uploading C:\Program Files\Stnexp\Queries\105810344.str



chain nodes :

13 14 15 16 22 23 24 25 26 27 28

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 19 20 21

chain bonds :

1-26 4-27 8-14 11-16 13-14 13-26 15-26 20-22 22-23 22-24 22-25
27-28

ring bonds :

1-2 1-6 2-3 2-19 3-4 3-21 4-5 5-6 7-8 7-12 8-9 9-10 10-11
11-12 19-20 20-21

exact/norm bonds :

4-27 11-16 15-26 22-25

exact bonds :

1-26 2-19 3-21 8-14 13-14 13-26 19-20 20-21 20-22 22-23 22-24
27-28

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

isolated ring systems :

10/581,034

containing 1 : 7 :

G1:H,CH3

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:CLASS 14:CLASS 15:CLASS 16:CLASS 19:Atom
20:Atom 21:Atom 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS
27:CLASS 28:CLASS

L13 STRUCTURE UPLOADED

=> s l13

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 20:42:34 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 2 TO ITERATE

100.0% PROCESSED 2 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 2 TO 124
PROJECTED ANSWERS: 0 TO 0

L14 0 SEA SSS SAM L13

L15 0 L14

=> dup rem l4 l8

PROCESSING COMPLETED FOR L4

PROCESSING COMPLETED FOR L8

L16 17 DUP REM L4 L8 (2 DUPLICATES REMOVED)

=> d l16 ibib abs hitstr hitind 1-17

L16 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:641256 CAPLUS
DOCUMENT NUMBER: 147:64520

10/581,034

TITLE: Protein kinase modulation and inflammatory response inhibition by hops and Acacia products
INVENTOR(S): Tripp, Matthew L.; Babish, John G.; Bland, Jeffrey; Hall, Amy Jennae; Konda, Veera; Pacioretty, Linda; Desai, Anu
PATENT ASSIGNEE(S): Metaproteomics, LLC, USA
SOURCE: PCT Int. Appl., 164pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007067812	A2	20070614	WO 2006-US47196	20061211
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
US 2007154576	A1	20070705	US 2006-636867	20061211
PRIORITY APPLN. INFO.:			US 2005-748931P	P 20051209

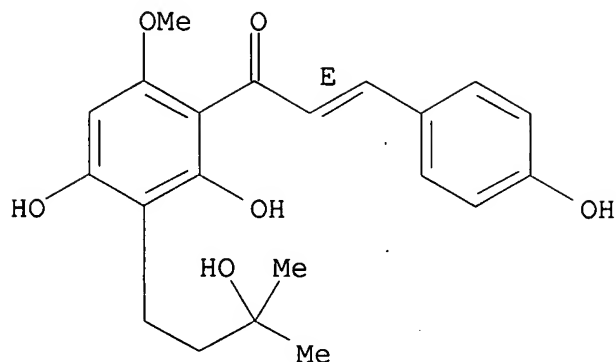
AB Botanical compds. to modulate kinase activity are disclosed. The compds. and methods disclosed also inhibit expression of COX-2, inhibit synthesis of prostaglandins selectively in target cells, and inhibit inflammatory response selectively. The compns. contain at least one fraction isolated or derived from hops or Acacia.

IT 688359-98-0, Xanthohumol H 832078-79-2, Xanthohumol G
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protein kinase modulation and inflammatory response inhibition by hops and Acacia products)

RN 688359-98-0 CAPLUS
CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

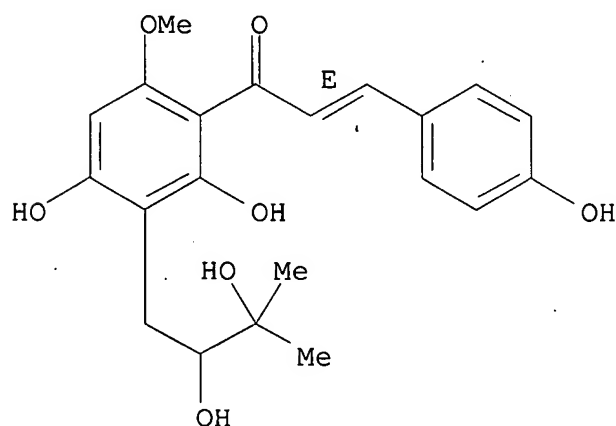
10/581,034



RN 832078-79-2 CAPLUS

CN 2-Propen-1-one, 1-[3-(2,3-dihydroxy-3-methylbutyl)-2,4-dihydroxy-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



CC 1-7 (Pharmacology)

Section cross-reference(s): 63

IT 50-81-7, Vitamin C, biological studies 94-41-7, Chalcone 94-41-7D, Chalcone, derivs. 123-08-0, 4-Hydroxybenzaldehyde 127-40-2, Lutein 144-68-3, Zeaxanthin 458-37-7, Curcumin 467-72-1, trans-Isohumulone 468-27-9, Colupulone 468-28-0, Lupulone 469-03-4, Posthumulone 474-58-8 475-36-5, Adhumulone 981-03-3, Humulinone 1406-18-4, Vitamin E 1534-03-8, cis-Isohumulone. 6754-58-1, Xanthohumol 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7782-49-2, Selenium, biological studies 25269-20-9, Isocohumulone 25422-83-7, Isoadhumulone 25522-96-7, Isohumulone 26054-22-8, cis-TetrahydroIsohumulone 28374-71-2, Adlupulone 28815-20-5, Tetrahydroisohumulone 29788-67-8, trans-TetrahydroIsohumulone 34421-27-7, Tetrahydroisocohumulone 38602-23-2, CoHumulinone 52755-22-3, Hexahydrocolupulone 53846-50-7, 8-Prenylnaringenin 58501-77-2, trans-Isocohumulone 59122-94-0,

Prehumulone 65761-25-3, Prelupulone 68107-76-6, trans-Isoadhumulone
 68127-23-1, cis-Isocohumulone 68236-11-3, 6,8-Diprenylnaringenin
 68236-13-5, 6-Prenylnaringenin 70872-29-6, Isoxanthohumol
 96614-01-6,
 cis-Isoadhumulone 115063-39-3, DesmethylXanthohumol 121250-47-3,
 Conjugatedlinoleic acid 123316-63-2, 4'-O-MethylXanthohumol
 142628-20-4, Cohumulone 189299-03-4, 3'-Geranylchalconaringenin
 189299-04-5, 5'-Prenylxanthohumol 189299-05-6, Xanthohumol C
 189308-10-9, Xanthohumol B 250603-94-2, Isodehydrocycloxanthohumol
 hydrate 265659-35-6, Xanthogalenol 274266-56-7 274675-25-1,
 Xanthohumol D 274675-26-2, Xanthohumol E 685110-34-3,
 Hexahydroisohumulone 685110-35-4, Dihydroisohumulone 685110-36-5,
 Tetrahydroadhumulone 685110-37-6, Hexahydroisocohumulone
 685110-38-7,
 Hexahydroadhumulone 688359-98-0, Xanthohumol H 688360-06-7,
 Xanthohumol I 790664-64-1, Dihydroisocohumulone 831227-05-5,
 Desmethylxanthohumol B 831227-06-6, Desmethylxanthohumol J
 832078-79-2, Xanthohumol G
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (protein kinase modulation and inflammatory response inhibition by
 hops
 and Acacia products)

L16 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489728 CAPLUS

DOCUMENT NUMBER: 144:481031

TITLE: Carcinogenesis inhibitors containing natural
 chalcones, coumarins, flavanones, and/or

diacetylene

derivative

INVENTOR(S): Akihisa, Toshihiro; Tokuda, Harukuni; Ukiya,
 Motohiko;

Hasegawa, Daisuke

PATENT ASSIGNEE(S): Nihon University, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent.

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2006131594	A	20060525	JP 2004-325369	20041109
PRIORITY APPLN. INFO.:			JP 2004-325369	20041109

AB Title inhibitors contain dorsmanin A, xanthoangelol I, J, xanthotoxin,
 isopimpinellin, osthenol, isobavachin, mundulea flavanone B,
 8-geranylnaringenin, and/or

(11S,16R)-dihydroxyoctadeca-9Z,17-diene-12,14-

diyn-1-yl acetate. They may be added to foods, beverages, and feeds.

10/581,034

Thus, xanthoangelol I and J completely inhibited TPA-induced expression of Epstein-Barr virus early antigen in Raji cells with their survival rate 70%, vs. 60%, for curcumin.

IT 878277-38-4P, Xanthoangelol J

RL: ADV (Adverse effect, including toxicity); FFD (Food or feed use); NPO

(Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (carcinogenesis inhibitors containing Angelica keiskei exudate constituents

with low toxicity)

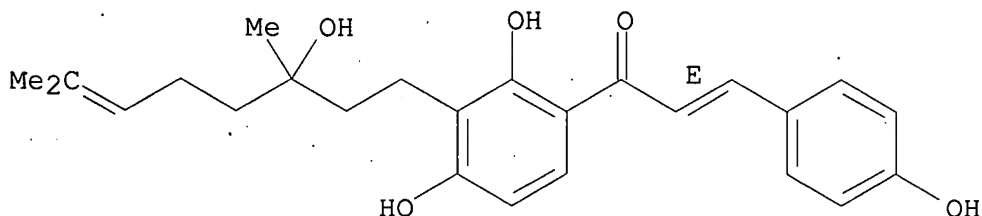
RN 878277-38-4 CAPLUS

CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3,7-dimethyl-6-octenyl)phenyl]-3-(4-hydroxyphenyl)-, (2E)-(+)- (9CI) (CA INDEX NAME)

Rotation (+).

Double bond geometry as shown.

Currently available stereo shown.



CC 1-6 (Pharmacology)

Section cross-reference(s): 11, 17, 63

IT 298-81-7P, Xanthotoxin 482-27-9P, Isopimpinellin 484-14-0P, Osthenol

31524-62-6P, Isobavachin 87893-18-3P, 8-Geranylneringenin 162229-27-8P, Dorsmanin A 201805-81-4P, Mundulea flavanone B 213905-35-2P, (11S,16R)-Dihydroxyoctadeca-9Z,17-diene-12,14-diyn-1-yl acetate 878277-37-3P, Xanthoangelol I 878277-38-4P, Xanthoangelol J

RL: ADV (Adverse effect, including toxicity); FFD (Food or feed use); NPO

(Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses) (carcinogenesis inhibitors containing Angelica keiskei exudate constituents with low toxicity)

L16 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:35389 CAPLUS

DOCUMENT NUMBER: 144:270561

TITLE: Chalcones and Other Compounds from the Exudates of

Angelica keiskei and Their Cancer Chemopreventive Effects

AUTHOR(S): Akihisa, Toshihiro; Tokuda, Harukuni; Hasegawa, Daisuke; Ukiya, Motohiko; Kimura, Yumiko; Enjo, Fumio;

Suzuki, Takashi; Nishino, Hoyoku

CORPORATE SOURCE: College of Science and Technology, Nihon University,

Tokyo, 101-8308, Japan

SOURCE: Journal of Natural Products (2006), 69(1), 38-42
CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society-American Society of Pharmacognosy

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three new chalcones, xanthoangelol I (1), xanthoangelol J (2), and deoxydihydroxanthoangelol H (3), were isolated from an Et acetate-soluble fraction of exudates of the stems of Angelica keiskei, and their structures were established on the basis of spectroscopic methods.

Nine aromatic compds. of known structure, 4-12, and a diacetylene, 13, were also isolated and identified from this same fraction. On evaluation of these compds. for their inhibitory effects on the induction of Epstein-Barr virus early antigen (EBV-EA) by 12-O-tetradecanoylphorbol-13-acetate (TPA) in Raji cells, 1, 2, 4, and 9-12 showed potent inhibitory effects on EBV-EA induction. In addition, upon evaluation of the inhibitory effects against activation of (\pm)-(E)-methyl-2[(E)-hydroxyimino]-5-nitro-6-methoxy-3-hexemide (NOR 1), a nitrogen oxide (NO) donor, six compds., namely, 1, 2, 4, 9, 11, and 12, exhibited potent inhibitory effects. Further, isobavachalcone (4) exhibited inhibitory effects on skin tumor promotion in an in vivo two-stage mouse skin carcinogenesis test using 7,12-dimethylbenz[a]anthracene (DMBA) as an initiator and TPA as a promoter.

IT 878277-38-4P, Xanthoangelol J

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);

PRP (Properties); PUR (Purification or recovery); BIOL (Biological study);

PREP (Preparation)

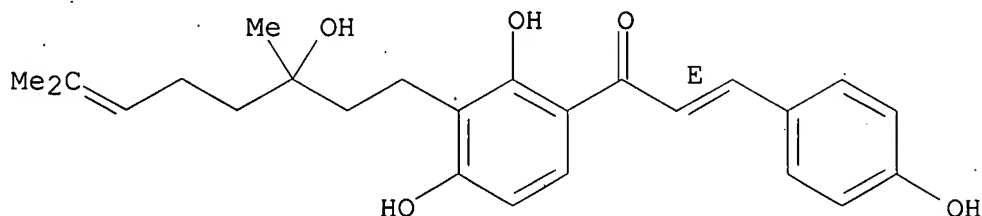
(isolation and characterization of chalcones and other compds. from the exudates of Angelica keiskei and their cancer chemopreventive effects)

RN 878277-38-4 CAPLUS

CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3,7-dimethyl-6-octenyl)phenyl]-3-(4-hydroxyphenyl)-, (2E)-(+)-(9CI) (CA INDEX NAME)

10/581,034

Rotation (+).
Double bond geometry as shown.
Currently available stereo shown.



CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 1, 26
IT 877875-97-3P, Deoxydihydroxanthoangelol H 878277-37-3P,
Xanthoangelol I
878277-38-4P, Xanthoangelol J
RL: BSU (Biological study, unclassified); PAC (Pharmacological
activity);
PRP (Properties); PUR (Purification or recovery); BIOL (Biological
study);
PREP (Preparation)
(isolation and characterization of chalcones and other compds. from
the
exudates of Angelica keiskei and their cancer chemopreventive
effects)
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR
THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L16 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:523399 CAPLUS
DOCUMENT NUMBER: 143:59727
TITLE: Extract of chalcone derivatives as aldose reductase
inhibitors
INVENTOR(S): Ohnogi, Hiromu; Sugiyama, Katsumi; Enoki, Tatsuji;
Kobayashi, Eiji; Sagawa, Hiroaki; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Bio Inc., Japan
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005054170	A1	20050616	WO 2004-JP17887	20041201
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

EP 1702912 A1 20060920 EP 2004-819873 20041201
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

CN 1890205 A 20070103 CN 2004-80036040 20041201

US 2007112066 A1 20070517 US 2006-581034 20060530

PRIORITY APPLN. INFO.: JP 2003-408215 A 20031205

WO 2004-JP17887 W 20041201

AB It is intended to provide novel chalcone compds. having carbon monoxide
 inhibitory effect or aldose reductase inhibitory effect, its derivs. or
 salts thereof. Eight chalcone derivs. were obtained from the extract
 of

angelica. One chalcone derivative was synthesized. These compds.
 showed good

inhibitory effect against aldose reductase and NO generation.

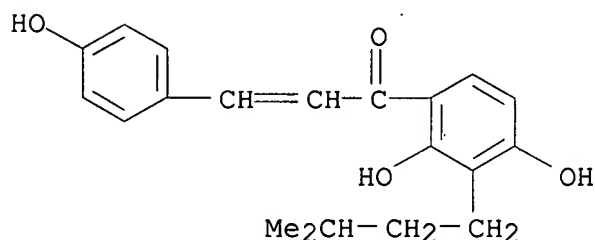
IT 853945-93-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(drug candidate; extract of chalcone derivs. as aldose reductase
 inhibitors)

RN 853945-93-4 CAPLUS

CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-methylbutyl)phenyl]-3-(4-
 hydroxyphenyl)- (9CI) (CA INDEX NAME)



IC ICM C07C049-835

ICS C07C049-84; C07C409-08; C07D307-80; C07D493-08; A61K031-343;
 A61K031-12; A61K031-201; A61K031-34; A61P003-10; A61P009-10;
 A61P013-12; A61P019-02; A61P019-06; A61P019-08; A61P025-02;
 A61P027-12; A61P029-00; A61P031-00; A61P035-00

CC 26-4 (Biomolecules and Their Synthetic Analogs)

10/581,034

Section cross-reference(s): 1, 17

IT 791112-91-9P 791112-93-1P 791112-94-2P 791112-95-3P
791112-96-4P

791112-97-5P 791632-40-1P 853945-92-3P 853945-93-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(drug candidate; extract of chalcone derivs. as aldose reductase
inhibitors)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR
THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L16 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:823550 CAPLUS

DOCUMENT NUMBER: 143:199938

TITLE: Remedy containing 3-hydroxy-3-methylglutaryl-CoA
reductase inhibitor and/or cell foaming inhibitor

INVENTOR(S): Enoki, Tatsuji; Kudo, Yoko; Sugiyama, Katsumi;
Ohnogi,

Hiromu; Sagawa, Hiroaki; Kato, Ikunoshin

PATENT ASSIGNEE(S): Takara Bio Inc., Japan

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005074906	A1	20050818	WO 2005-JP1655	20050204
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: JP 2004-31173 A 20040206

OTHER SOURCE(S): MARPAT 143:199938

AB It is intended to provide a drug, a food, a drink or a feed for
treating

or preventing diseases, wherein an effect of inhibiting
3-hydroxy-3-methylglutaryl-CoA reductase and/or an effect against cell
foaming are needed for the prevention or treatment, characterized by

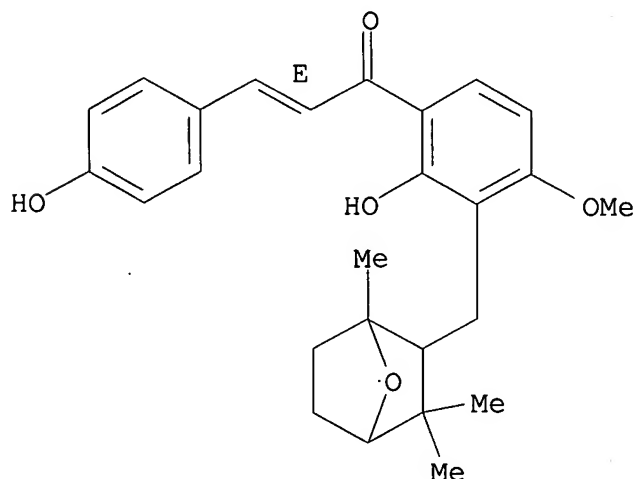
10/581,034

containing, as the active ingredient, at least one compound selected from the group consisting of chalcone compds., flavanone compds., 3',4'-dihydroseseline compds., derivs. thereof and salts thereof. The above-described drug, food, drink or feed is useful in treating or preventing, for example, hyperlipemia, arteriosclerosis and various diseases caused mainly thereby. For example, xanthoangelol was isolated from Angelica Keiskei root extract, and examined for its HMG-CoA reductase inhibitory effect in vitro.

IT 791632-40-1P
RL: FFD (Food or feed use); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(chalcone compds., flavanone compds., and dihydroseseline compds. as 3-hydroxy-3-methylglutaryl-CoA reductase inhibitors and/or cell foaming inhibitors)

RN 791632-40-1 CAPLUS
CN 2-Propen-1-one, 1-[2-hydroxy-4-methoxy-3-[(1,3,3-trimethyl-7-oxabicyclo[2.2.1]hept-2-yl)methyl]phenyl]-3-(4-hydroxyphenyl)-, (2E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM A61K031-12
ICS A23K001-16; A23L001-30; A23L002-52; A61K031-34; A61K031-343; A61K031-352; A61K031-353; A61P003-06; A61P009-10; A61P043-00; C12N009-99; C07D307-80; C07D311-32; C07D311-80; C07D493-08

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 17, 18

IT 6754-58-1P, Xanthohumol 20784-50-3P, Isobavachalcone 27800-79-9P
29049-07-8P 31524-62-6P, Isobavachin 62949-76-2P, Xanthoangelol

10/581,034

160036-29-3P, 4'-O-Geranylnaringenin 162382-66-3P, Prostratol F
265652-71-9P, Xanthoangelol F 265652-88-8P, Xanthoangelol G
265652-89-9P, Xanthoangelol H 299929-45-6P 677726-10-2P
677746-19-9P
791112-91-9P 791112-92-0P 791112-93-1P 791112-94-2P
791112-95-3P
791112-96-4P 791113-21-8P 791632-40-1P 862013-04-5P
RL: FFD (Food or feed use); NPO (Natural product occurrence); PAC
(Pharmacological activity); PUR (Purification or recovery); THU
(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP
(Preparation); USES (Uses)
(chalcone compds., flavanone compds., and dihydroseselin compds. as
3-hydroxy-3-methylglutaryl-CoA reductase inhibitors and/or cell
foaming inhibitors)
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR
THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L16 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:604276 CAPLUS
DOCUMENT NUMBER: 143:259686
TITLE: Xanthohumol Isolated from Humulus lupulus Inhibits
Menadione-Induced DNA Damage through Induction of
Quinone Reductase
AUTHOR(S): Dietz, Birgit M.; Kang, Young-Hwa; Liu, Guowen;
Eggler, Aimee L.; Yao, Ping; Chadwick, Lucas R.;
Pauli, Guido F.; Farnsworth, Norman R.; Mesecar,
Andrew D.; Van Breemen, Richard B.; Bolton, Judy L.
CORPORATE SOURCE: College of Pharmacy, Department of Medicinal
Chemistry
and Pharmacognosy and UIC/NIH Center for Botanical
Dietary Supplements Research, University of
Illinois
at Chicago, Chicago, IL, 60612-7231, USA
SOURCE: Chemical Research in Toxicology (2005), 18(8),
1296-1305
CODEN: CRTOEC; ISSN: 0893-228X
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The female parts of hops (Humulus lupulus L.) show estrogenic effects
as
well as cancer chemopreventive potential. We analyzed the
chemopreventive
mechanism of hops by studying its antioxidative activities and its
effect
on the detoxification of a potentially toxic quinone (menadione). The
detoxification enzyme quinone reductase [(NAD(P)H):quinone
oxidoreductase,
QR] protects against quinone-induced toxicity and has been used as a

marker in cancer chemoprevention studies. Although the hop extract was only

a weak quencher of free radicals formed from 1,1-diphenyl-2-picrylhydrazyl, it demonstrated strong QR induction in Hepa 1c1c7 cells.

In addition, compds. isolated from hops including xanthohumol (XH) and 8-prenyl-naringenin were tested for QR induction. Among these, XH was the most effective at inducing QR with a concentration required to double the specific activity of QR (CD value) of $1.7 \pm 0.7 \mu\text{M}$. In addition, pretreatment of Hepa1c1c7 cells with XH significantly inhibited menadione-induced DNA single-strand breaks. The QR inhibitor dicumarol reversed the protective effect of XH against menadione-induced DNA damage.

Because the expression of QR and other detoxifying enzymes is known to be

upregulated by binding of the transcription factor Nrf2 to the antioxidant

response element (ARE), the reporter activity mediated by ARE in HepG2-ARE-C8 cells was investigated after incubation with XH for 24 h. Under these conditions, XH increased ARE reporter activity in a dose-dependent manner. One mechanism by which XH might induce QR could be

through interaction with Keap1, which sequesters Nrf2 in the cytoplasm, so

that it cannot activate the ARE. Using LC-MS-MS, we demonstrated that XH

alkylates human Keap1 protein, most likely on a subset of the 27 cysteines

of Keap1. This suggests that XH induces QR by covalently modifying the Keap1 protein. Therefore, XH and hops dietary supplements might function

as chemopreventive agents, through induction of detoxification enzymes such as QR.

IT 688359-98-0, Xanthohumol H 832078-79-2, Xanthohumol G

RL: NPO (Natural product occurrence); PAC (Pharmacological activity);

THU

(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(xanthohumol from Humulus lupulus inhibits menadione-induced DNA damage

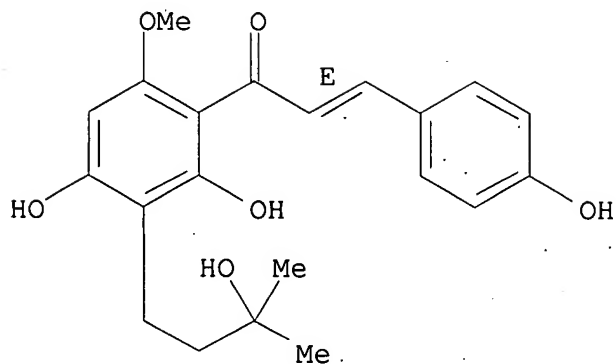
through induction of quinone reductase)

RN 688359-98-0 CAPLUS

CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

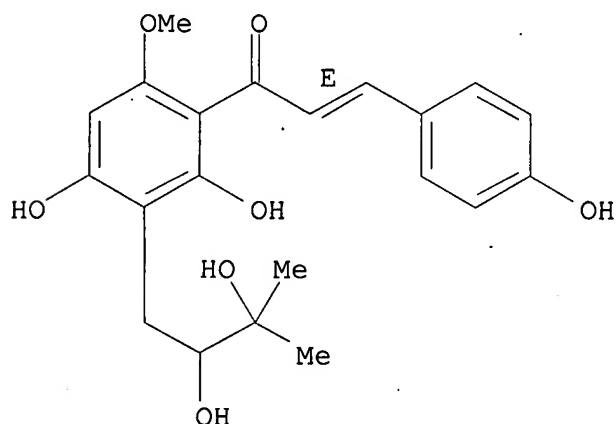
10/581,034



RN 832078-79-2 CAPLUS

CN 2-Propen-1-one, 1-[3-(2,3-dihydroxy-3-methylbutyl)-2,4-dihydroxy-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



CC 1-6 (Pharmacology)

Section cross-reference(s): 11

IT 68236-11-3, 6,8-Diprenylnaringenin 68236-13-5, 6-Prenylnaringenin
70872-29-6, Isoxanthohumol 189299-04-5 189299-05-6, Xanthohumol C
189308-10-9, Xanthohumol B 274675-25-1, Xanthohumol D
688359-98-0, Xanthohumol H 688360-06-7, Xanthohumol I
688360-14-7 831227-04-4 831227-05-5, Desmethylxanthohumol B
831227-06-6, Desmethylxanthohumol J 832078-79-2, Xanthohumol G
863718-47-2

RL: NPO (Natural product occurrence); PAC (Pharmacological activity);

THU

(Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES

(Uses)

(xanthohumol from Humulus lupulus inhibits menadione-induced DNA damage

through induction of quinone reductase)

REFERENCE COUNT:

61

THIS

THERE ARE 61 CITED REFERENCES AVAILABLE FOR

RECORD. ALL CITATIONS AVAILABLE IN THE RE.

FORMAT

L16 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:602816 CAPLUS

DOCUMENT NUMBER: 143:282488

TITLE: In vitro antiplasmodial activity of prenylated chalcone derivatives of hops (*Humulus lupulus*) and their interaction with hemin

AUTHOR(S): Froelich, Sonja; Schubert, Carola; Bienzle, Ulrich; Jenett-Siems, Kristina

CORPORATE SOURCE: Institut fuer Pharmazie (Pharmazeutische Biologie), Freie Universitaet Berlin, Berlin, D-14195, Germany

SOURCE: Journal of Antimicrobial Chemotherapy (2005), 55(6),

883-887

CODEN: JACHDX; ISSN: 0305-7453

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB There is an urgent need to discover new antimalarials, due to the spread

of chloroquine resistance and the limited number of available drugs.

Chalcones are one of the classes of natural products that are known to possess antiplasmodial properties. Therefore, the in vitro

antiplasmodial

activity of the main hop chalcone xanthohumol and seven derivs. was evaluated. In addition, the influence of the compds. on glutathione (GSH)-dependent hemin degradation was analyzed to determine its

contribution to the

antimalarial effect of chalcones. In vitro antiplasmodial activity was evaluated against the chloroquine-sensitive strain poW and the multi-resistant clone Dd2 using a [³H]hypoxanthine-incorporation assay. Inhibition of GSH-dependent hemin degradation was analyzed by a

multi-well

plate assay at 11 μ M. Of the eight compds. tested, four possessed activity with IC₅₀ values < 25 μ M against at least one of the two strains of *Plasmodium falciparum*. The main hop chalcone, xanthohumol,

was

most active with IC₅₀ values of 8.2 \pm 0.3 (poW) and 24.0 \pm 0.8 μ M (Dd2). Three of these compds. were addnl. active in the

hemin-degradation

assay. The results demonstrate for the first time the ability of chalcone

derivs. to interfere with the hemin-degradation process of *P. falciparum*.

This effect might contribute to their antiplasmodial activity.

Nevertheless, as one compound showed inhibition of *P. falciparum* without

being able to interact with GSH-dependent hemin degradation, other modes of

action must add to the observed antiparasitic activity of hop chalcones.

10/581,034

IT 864465-61-2

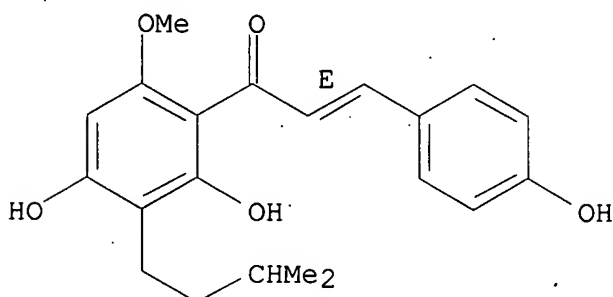
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antiplasmodial activity of prenylated chalcone derivs. of hops
(*Humulus lupulus*) and their influence on glutathione-dependent hemin
degradation)

RN 864465-61-2 CAPLUS

CN 2-Propen-1-one,

1-[2,4-dihydroxy-6-methoxy-3-(3-methylbutyl)phenyl]-3-(4-
hydroxyphenyl)-, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

Section cross-reference(s): 11

IT 70-18-8, Glutathione, biological studies 94-41-7D, Chalcone,
prenylated

derivs. 6754-58-1, Xanthohumol 16009-13-5, Hemin 68236-13-5
115063-39-3 115063-40-6 250603-94-2 688360-14-7 864465-61-2
864465-62-3

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antiplasmodial activity of prenylated chalcone derivs. of hops
(*Humulus lupulus*) and their influence on glutathione-dependent hemin
degradation)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR
THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L16 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:781478 CAPLUS

DOCUMENT NUMBER: 144:167259

TITLE: Brosimacutins J-M, four new flavonoids from
Brosimum

acutifolium and their cytotoxic activity
AUTHOR(S): Takashima, Junko; Komiyama, Kanki; Ishiyama,
Haruaki;

Kobayashi, Jun'ichi; Ohsaki, Ayumi
CORPORATE SOURCE: Research & Development Division, Mitsubishi Pharma
Corporation, Yokohama, Japan

SOURCE: Planta Medica (2005), 71(7), 654-658

PUBLISHER:
DOCUMENT TYPE:
LANGUAGE:
GI

CODEN: PLMEAA; ISSN: 0032-0943
Georg Thieme Verlag
Journal
English

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Four new flavonoids, brosimacutins J-M (I-IV), were isolated from the bark of *Brosimum acutifolium* Huber together with a known flavan, brosimine A (5). The structures of compds. I-IV were elucidated by spectroscopic means. 27 Constituents of this plant including compds. 1-5 were evaluated

for their cytotoxic activity against murine leukemia P388 cells. Although no compds. tested had any reversal effect on vincristine resistance, brosimacutins J-M were cytotoxic to vincristine-resistant P388 cells (IC₅₀

4.4-19 µg/mL).

IT 874205-59-1P, Brosimacutin M
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(brosimacutins J-M, four new flavonoids from *Brosimum acutifolium*

and

their cytotoxic activity)

RN 874205-59-1 CAPLUS

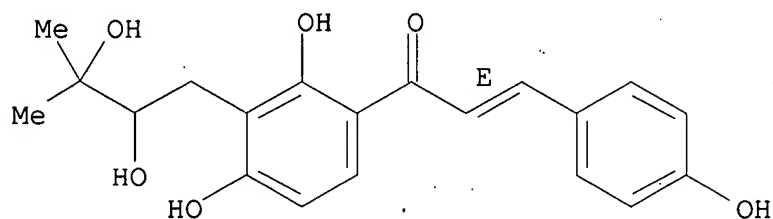
CN 2-Propen-1-one,

1-[3-(2,3-dihydroxy-3-methylbutyl)-2,4-dihydroxyphenyl]-3-(4-hydroxyphenyl)-, (2E)-(-)- (9CI) (CA INDEX NAME)

Rotation (-).

Double bond geometry as shown.

Currently available stereo shown.



CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 26

IT 874204-62-3P, Brosimacutin J 874205-55-7P, Brosimacutin K
874205-58-0P, Brosimacutin L 874205-59-1P, Brosimacutin M

10/581,034

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(brosimacutins J-M, four new flavonoids from Brosimum acutifolium

and

their cytotoxic activity)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L16 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:3740 CAPLUS

DOCUMENT NUMBER: 142:215204

TITLE: Prenylflavonoids and Phloroglucinol Derivatives
from

Hops (Humulus lupulus)

AUTHOR(S): Zhao, Feng; Watanabe, Yuki; Nozawa, Hajime;
Daikonnya,

CORPORATE SOURCE: Akihiro; Kondo, Keiji; Kitanaka, Susumu
Central Laboratories for Key Technology, Kirin
Brewery

SOURCE: Co., Ltd., Kanagawa, 236-0004, Japan
Journal of Natural Products (2005); 68(1), 43-49
CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Et acetate soluble fraction of hops (Humulus lupulus) showed potent inhibitory activity on the production of nitric oxide (NO) induced by a combination of LPS and IFN- γ . Four known prenylflavonoids and a new prenylflavonoid, hulupinic acid, lupulone, and its six new derivs.

were

isolated from the active fraction. The structures were determined on the basis

of physiochem. properties and spectroscopic anal. Their inhibitory activities on the production of NO in macrophage RAW 264.7 cells were examined

IT 842121-72-6P

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(prenylflavonoids and phloroglucinol derivs. from Humulus lupulus)

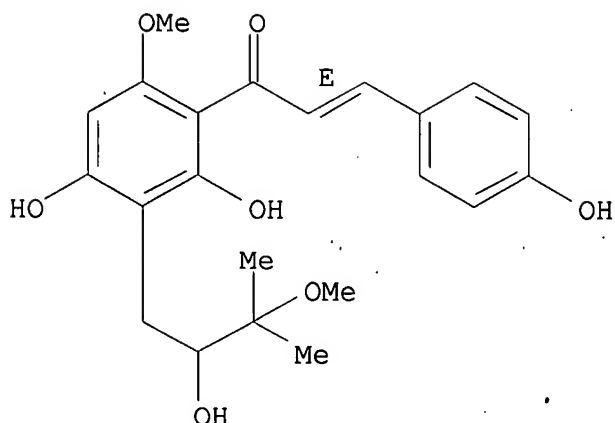
RN 842121-72-6 CAPLUS

CN 2-Propen-1-one,

1-[2,4-dihydroxy-3-(2-hydroxy-3-methoxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

Currently available stereo shown.



CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 7, 26

IT 29366-64-1P, Lupulone E 613683-50-4P, Lupulone C 613683-51-5P,
 Lupulone D 842121-72-6P 842121-73-7P, Lupulone A
 842121-74-8P, Lupulone B 842121-75-9P, Lupulone F

RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
 (prenylflavonoids and phloroglucinol derivs. from Humulus lupulus)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L16 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2004:965043 CAPLUS

DOCUMENT NUMBER: 141:415986

TITLE: Therapeutic agent for insulin-related disease

INVENTOR(S): Enoki, Tatsuji; Kobayashi, Eiji; Ogawa, Kinuko;
 Kudo,

Yoko; Tanabe, Masashige; Sugiyama, Katsumi; Ohnogi,
 Hiromu; Sagawa, Hiroaki; Kato, Ikunoshin

PATENT ASSIGNEE(S): Takara Bio Inc., Japan

SOURCE: PCT Int. Appl., 289 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004096198	A1	20041111	WO 2004-JP6282	20040430
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG
 EP 1623704 A1 20060208 EP 2004-730641 20040430
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
 CN 1816328 A 20060809 CN 2004-80018286 20040430
 US 2007092551 A1 20070426 US 2007-555017 20070103
 JP 2007131637 A 20070531 JP 2007-21753 20070131
 JP 2007186515 A 20070726 JP 2007-21740 20070131
 PRIORITY APPLN. INFO.: JP 2003-127517 A 20030502
 JP 2003-140821 A 20030519
 JP 2003-177280 A 20030620
 JP 2003-202118 A 20030725
 JP 2003-408213 A 20031205
 JP 2004-90656 A 20040325
 JP 2005-505944 A3 20040430
 WO 2004-JP6282 W 20040430

OTHER SOURCE(S): MARPAT 141:415986

AB Disclosed is a preventive or therapeutic agent for diseases accompanied by

insulin level or insulin response disorder, characterized in that at least

one compound selected from the group consisting of chalcone compds., acetophenone compds., coumarin compds., phthalide compds., derivs. of these and pharmacol. acceptable salts thereof is contained as an active ingredient. There are further provided an insulin-like agent; a food, beverage or feed; a promoter of glucose introjection in cells; and an agent capable of inducing differentiation to lipocytes. The agents are suitable for use in pharmaceuticals, foods, and/or feeds. For example, xanthoangelol was isolated from Angelica keiskei root, and in vitro tested

for its effect on adipocyte differentiation induction.

IT 791113-01-4P

RL: FFD (Food or feed use); PAC (Pharmacological activity); SPN

(Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(therapeutic agents for insulin-related disease containing chalcone

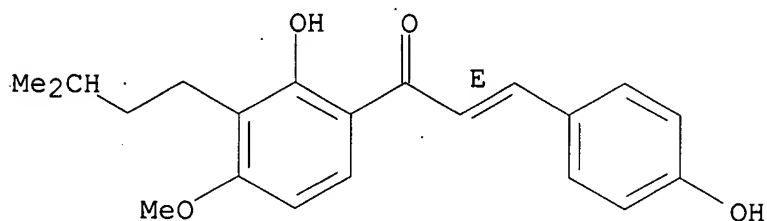
10/581,034

compds., acetophenone compds., coumarin compds., and/or phthalide compds.,)

RN 791113-01-4 CAPLUS

CN 2-Propen-1-one, 1-[2-hydroxy-4-methoxy-3-(3-methylbutyl)phenyl]-3-(4-hydroxyphenyl)-, (2E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM A61K031-121

ICS A61K031-222; A61K031-343; A61K031-341; A61K031-365; A61K031-351; A61K031-381; A61K031-366; A61K031-352; A61P043-00; A61P003-10; A61P003-08; A61P005-50; C07D493-08; C07D309-12; C07D311-32; C07C049-84; C07C049-835; C07C069-18; C07C069-157

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 17, 18

IT 6272-43-1P, 3,4,2'-Trihydroxychalcone 20180-87-4P,

2'-Hydroxy-3'-geranyl-

4'-methoxyacetophenone 28437-37-8P 28448-85-3P, Bavachalcone

31165-67-0P, 2'-Benzyloxyacetophenone 37761-53-8P 63529-06-6P

65786-15-4P 66549-80-2P 66549-83-5P 95832-45-4P 118062-82-1P

126909-50-0P 162382-66-3P, Prostratol F 208659-72-7P

265652-88-8P,

Xanthoangelol G 352275-68-4P 352275-69-5P 791112-98-6P

791113-00-3P 791113-01-4P 791113-02-5P 791113-03-6P

791113-04-7P 791113-06-9P 791113-07-0P 791113-08-1P

791113-09-2P

791113-10-5P 791113-11-6P 791113-12-7P 791113-13-8P

791113-16-1P

791113-17-2P 791113-18-3P 791113-19-4P 791113-20-7P

791113-21-8P

791113-24-1P 791113-25-2P 791113-29-6P 791113-31-0P

791113-32-1P

791113-33-2P 791113-34-3P 791113-35-4P

RL: FFD (Food or feed use); PAC (Pharmacological activity); SPN

(Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(therapeutic agents for insulin-related disease containing chalcone compds., acetophenone compds., coumarin compds., and/or phthalide compds.,)

REFERENCE COUNT:

19

THERE ARE 19 CITED REFERENCES AVAILABLE FOR

THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L16 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1068127 CAPLUS

DOCUMENT NUMBER: 142:173331

TITLE: Estrogens and Congeners from Spent Hops (*Humulus lupulus*)

AUTHOR(S): Chadwick, Lucas R.; Nikolic, Dejan; Burdette, Joanna

E.; Overk, Cassia R.; Bolton, Judy L.; van Breemen, Richard B.; Froehlich, Roland; Fong, Harry H. S.; Farnsworth, Norman R.; Pauli, Guido F.

CORPORATE SOURCE: UIC/NIH Center for Botanical Dietary Supplements Research, Department of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, Chicago, IL, 60612, USA

SOURCE: Journal of Natural Products (2004), 67(12), 2024-2032

CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Estrogenicity-directed fractionation of a methanol extract of the strobiles

of *Humulus lupulus* that had been extracted previously with supercrit.CO₂, known as "spent hops", led to the isolation and identification of 22 compds. including 12 prenylated chalcones (1-8, 10-13), five prenylflavanones (14-17), 4-hydroxybenzaldehyde (18), sitosterol-3-O- β -glucopyranoside (19), humulinone (20), and cohumulone (21). In addition, the prenylated chalcone xanthohumol C (9a) was obtained as a

6:1 mixture along with its 1'',2''-dihydro derivative (9b). Three new chalcones (4, 11, 12) and four previously unreported constituents of hops (5, 6, 9b, 13)

are reported. The structures of the new compds. were determined through a

combination of spectrometric techniques including 1D and 2D NMR, HRESIMS,

and ESIMS-MS. Full ¹H NMR spin system analyses were performed to characterize the higher-order glucopyranosyl, prenyl, and chalcone B-ring

spectra of the isolates. The principle estrogen 8-prenylnaringenin (15)

from hops is an artifact formed along with its positional isomer 6-prenylnaringenin (16) through the spontaneous isomerization of the pro-estrogenic chalcone DMX (7).

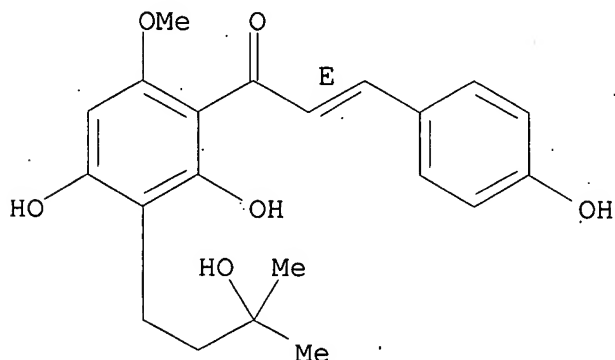
IT 688359-98-0P, Xanthohumol H 832078-79-2P, Xanthohumol G
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(estrogens and congeners from *Humulus lupulus*)

10/581,034

RN 688359-98-0 CAPLUS

CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

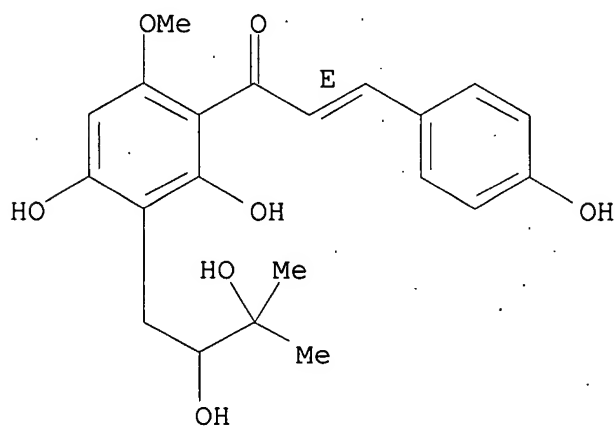
Double bond geometry as shown.



RN 832078-79-2 CAPLUS

CN 2-Propen-1-one, 1-[3-(2,3-dihydroxy-3-methylbutyl)-2,4-dihydroxy-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 26

IT 250603-94-2P 688359-98-0P, Xanthohumol H 688360-06-7P,
Xanthohumol I 831227-04-4P 831227-05-5P, Desmethylxanthohumol B
831227-06-6P, Desmethylxanthohumol J 832078-79-2P, Xanthohumol G
RL: BSU (Biological study, unclassified); NPO (Natural product
occurrence); PRP (Properties); PUR (Purification or recovery); BIOL
(Biological study); OCCU (Occurrence); PREP (Preparation)
(estrogens and congeners from Humulus lupulus)

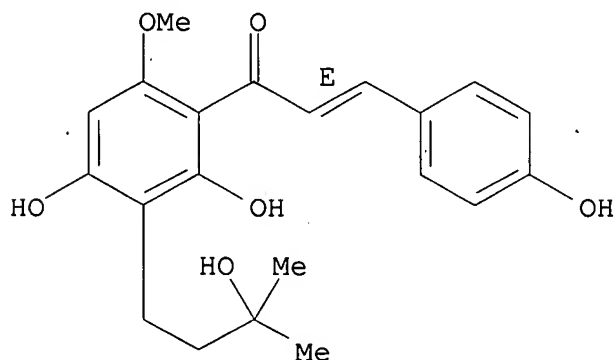
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR
THIS

FORMAT

RECORD. ALL CITATIONS AVAILABLE IN THE RE

L16 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:173234 CAPLUS
DOCUMENT NUMBER: 140:399280
TITLE: Xanthohumol metabolites in feces of rats
AUTHOR(S): Nookandeh, Aslieh; Frank, Norbert; Steiner, Frank; Ellinger, Renate; Schneider, Bernd; Gerhauser, Clarissa; Becker, Hans
CORPORATE SOURCE: Institute for Pharmacognosy and Analytical Phytochemistry, University of the Saarland, Saarbrücken, 66041, Germany
SOURCE: Phytochemistry (Elsevier) (2004), 65(5), 561-570
CODEN: PYTCAS; ISSN: 0031-9422
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Xanthohumol (1), isolated from hop, was fed to rats in a dose of 1000 mg kg⁻¹ body weight. The feces of the animals were collected after 24 and 48 h and analyzed for metabolites of 1. Approx. 89% of the recovered flavonoid-compds. consisted of unchanged 1. Sixteen metabolites and six previously known metabolites were isolated and characterized by coupling techniques (HPLC-NMR, HPLC-MS and HPLC-DAD). Their structures were elucidated by spectroscopic methods, especially using NMR spectroscopy. Twenty metabolites had a modified chalcone structure and two metabolites were flavanone derivs.
IT 688359-98-0
RL: BSU (Biological study, unclassified); BIOL (Biological study) (xanthohumol metabolites in feces of rats)
RN 688359-98-0 CAPLUS
CN 2-Propen-1-one, 1-[2,4-dihydroxy-3-(3-hydroxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



10/581,034

CC 1-2 (Pharmacology)

IT 6754-58-1, Xanthohumol 70872-29-6, Isoxanthohumol 189299-05-6
250603-94-2 274675-25-1 688359-98-0 688359-99-1
688360-00-1 688360-01-2 688360-02-3 688360-03-4 688360-04-5
688360-05-6 688360-06-7 688360-07-8 688360-08-9 688360-09-0
688360-10-3 688360-11-4 688360-12-5 688360-13-6 688360-14-7
688360-15-8

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(xanthohumol metabolites in feces of rats)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR
THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L16 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:363073 CAPLUS

DOCUMENT NUMBER: 139:332335

TITLE: Inhibitors of nitric oxide production from hops
(Humulus lupulus L.)

AUTHOR(S): Zhao, Feng; Nozawa, Hajime; Daikonnya, Akihiro;
Kondo,

Keiji; Kitanaka, Susumu

CORPORATE SOURCE: Central Laboratories for Key Technology, Kirin
Brewery

Co., Ltd., Kanagawa, 236-0004, Japan

SOURCE: Biological & Pharmaceutical Bulletin (2003), 26(1),
61-65

CODEN: BPBLEO; ISSN: 0918-6158

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Nitric oxide (NO) plays an important role in many inflammatory
responses

and is also involved in carcinogenesis. In the present study, we
investigated the inhibitory effect of exts. from Humulus lupulus L. on
both the production of NO and the expression of inducible NO synthase
(iNOS)

in mouse macrophage RAW 264.7 cells. The production of NO was induced
by a

combination of lipopolysaccharide (LPS) and IFN- γ , and determined by
Griess assay. The expression of iNOS was detected by Western blotting.
The LPS/IFN- γ -induced production of NO and expression of iNOS were
significantly inhibited by the Et acetate soluble fraction of Humulus
lupulus

L. Through bioactivity guided fractionation, humulene, five chalcones,
2,2-di-(3-methyl-2-butyleyl)-4,5-dihydroxy- cyclopent-4-en-1,3-dione,
lupulone and three of its derivs. were isolated from the Et acetate
soluble

fraction. The chalcones, including xanthohumol, significantly
inhibited

the production of NO by suppressing the expression of iNOS.

IT 613683-49-1P

10/581,034

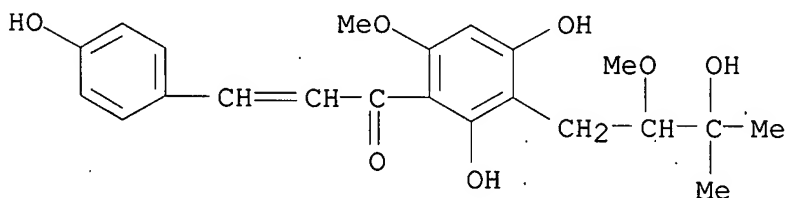
RL: ADV (Adverse effect, including toxicity); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(preparation and structure activity of nitric oxide inhibitors extracted from hops)

RN 613683-49-1 CAPLUS

CN 2-Propen-1-one,

1-[2,4-dihydroxy-3-(3-hydroxy-2-methoxy-3-methylbutyl)-6-methoxyphenyl]-3-(4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



CC 1-3 (Pharmacology)

Section cross-reference(s): 11

IT 94-41-7P, Chalcone 468-28-0P 1891-42-5P 6753-98-6P, Humulene 6754-58-1P, Xanthohumol 29366-64-1P 102448-00-0P 189308-10-9P, Xanthohumol B 274675-25-1P, Xanthohumol D 613683-49-1P 613683-50-4P 613683-51-5P

RL: ADV (Adverse effect, including toxicity); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(preparation and structure activity of nitric oxide inhibitors extracted from hops)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L16 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:614230 CAPLUS

DOCUMENT NUMBER: 111:214230

TITLE: Preparation and formulation of chalcone derivatives as

aldose reductase inhibitors

INVENTOR(S): Chin, Masao; Sato, Shunji; Hosaka, Kunio; Mihashi, Hiroshi

PATENT ASSIGNEE(S): Tsumura and Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

10/581,034

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01013019	A	19890117	JP 1987-142166	19870609
PRIORITY APPLN. INFO.:			JP 1987-142166	19870609

OTHER SOURCE(S): MARPAT 111:214230

GI For diagram(s), see printed CA Issue.

AB Chalcone compds. (I; X = Y = H, XY = bond; R1 = OH, AcO, HO2CCH2O, MeO2CCH2O; R2 = isoprenyl isopentyl, Pr, H; R3 = OH, MeO; R4, R5 = H, OH,

MeO) effective reductase inhibitors, are prepared Condensation of ketone II

(preparation given) with aldehyde III (preparation given) in KOH-EtOH gave 78.3%

unsatd. ketone IV which was hydrogenated over 5% Pd-C to give 97.3% saturated

ketone. Hydrolysis of the saturated ketone in HCl-MeOH gave 39.0% I (X = Y =

H, R1 = R3 = R5 = OH; R2 = R4 = H) (V) which (5.0 %) was formulated with

150 mL polysorbate-80 and 4.85 L sterilized saline to make injection vials

containing 10 mg V each. V showed 99.0% inhibition of aldose reductase in rat

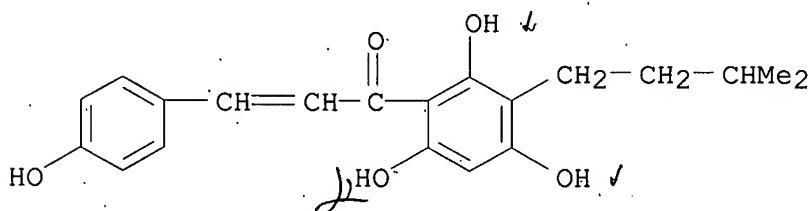
lens at 10-4M.

IT 112772-81-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as aldose reductase inhibitor)

RN 112772-81-3 CAPLUS

CN 2-Propen-1-one, 3-(4-hydroxyphenyl)-1-[2,4,6-trihydroxy-3-(3-methylbutyl)phenyl]- (9CI) (CA INDEX NAME)



IC ICM A61K031-12

ICS A61K031-22; A61K031-235; C12N009-99

ICA C07C049-82; C07C049-84; C07C069-12; C07C069-708; C07C069-94

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds) Section cross-reference(s): 1, 63

IT 60-82-2P 21849-70-7P 23130-26-9P 57765-66-9P 73692-51-0P
100634-10-4P 112772-63-1P 112772-71-1P 112772-73-3P

112772-74-4P

10/581,034

112772-79-9P 112772-80-2P 112772-81-3P 112772-82-4P

118055-99-5P 118056-04-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as aldose reductase inhibitor)

L16 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:23539 CAPLUS

DOCUMENT NUMBER: 110:23539

TITLE: Antiulcer agents containing chalcone derivatives as effective ingredients and novel chalcone

derivatives

INVENTOR(S): Komazawa, Yukio; Takeda, Shigehumi; Hosaka, Kunio; Mitsuhashi, Hiroshi; Watanabe, Toshihiko

PATENT ASSIGNEE(S): Tsumura Juntendo, Inc., Japan

SOURCE: PCT Int. Appl., 256 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

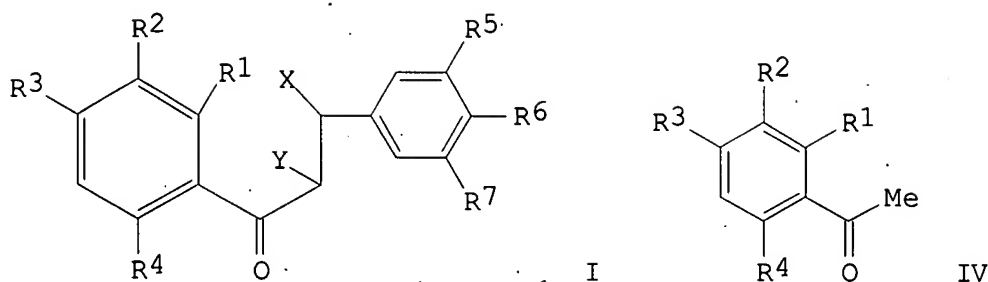
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 8804288	A1	19880616	WO 1987-JP973	19871212
W: HU, KR, US				
RW: AT, BE, CH, DE, FR, GB, IT, NL				
JP 63150241	A	19880622	JP 1986-294952	19861212
JP 01042422	A	19890214	JP 1987-198197	19870810
EP 292576	A1	19881130	EP 1988-900102	19871212
R: AT, BE, CH, DE, FR, GB, IT, LI, NL				
HU 52026	A2	19900628	HU 1988-311	19871212
HU 203515	B	19910828		
US 5106871	A	19920421	US 1991-733003	19910719
US 5234951	A	19930810	US 1991-797063	19911125
PRIORITY APPLN. INFO.:			JP 1986-294952	A 19861212
			JP 1987-198197	A 19870810
			WO 1987-JP973	W 19871212
			US 1988-237850	B1 19880720
			US 1989-436088	B1 19891109
			US 1991-733003	A3 19910719

OTHER SOURCE(S): MARPAT 110:23539

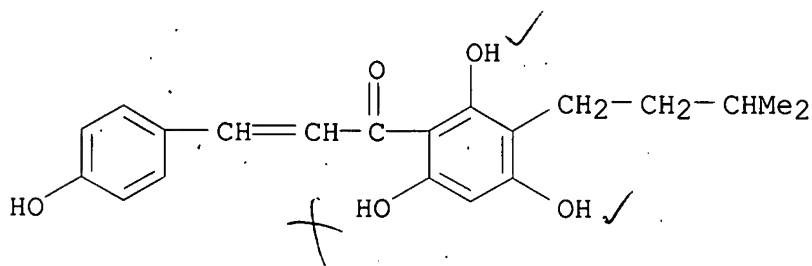
GI



AB Ulcer inhibitors containing chalcone derivs. I (X, Y = H or XY = bond;
 R1 = OH, AcO, HO₂CCH₂O, MeO₂CCH₂O; R2 = H, isoprenyl, isopentyl, Pr; R3 = OH,
 Me; R4 = H, OH, MeO; R5 = H, OH, MeO, isopentyl; R6 = OH, MeO, MeO₂C;
 R7 = H, MeO) (II) and chalcone derivs. I (X, Y, R2, R3, R4, R6, R7 as
 specified above; R1 = OH, HO₂CCH₂O; R5 = H, OH, MeO; but R6 = MeO when R5 = OH,
 R6 = OH when R5 = MeO; etc.) (III) are prepared To a mixture of an
 acetophenone IV
 (R1 = R3 = R4 = OH, R2 = H) and K₂CO₃ in THF was added dropwise
 ClCH₂CH:CM₂ and the mixture was further stirred 2 days to give 34.0%
 IV (R1 = R3 = R4 = OH, R2 = Me₂C:CHCH₂) which was stirred 1 h with
 (Me₂CH)₂EtN in THF and to the resultant stirred mixture was added dropwise ClCH₂OMe
 to give IV (R1 = OH; R3 = R4 = MeOCH₂O; R2 = Me₂C:CHCH₂) (V). V and
 3-methoxy-4-methoxymethoxybenzaldehyde in EtOH were condensed by
 addition of saturated KOH in aqueous EtOH at 0° and stirring the resultant mixture
 15 h at room temperature to give 57.0% diphenylpropenone I (XY = bond, R1 = OH,
 R2 = Me₂C:CHCH₂, R3 = R4 = R6 = MeOCH₂O, R5 = MeO, R7 = H) which was
 hydrogenated over 5 % Pd-C to give 93.8% diphenylpropanone I (X = Y =
 R7 = H, R1 = OH, R2 = isopentyl, R3 = R4 = R6 = MeOCH₂O, R5 = MeO) which was
 hydrolyzed to give 50.9% chalcone derivative III (X = Y = R7 = H, R1 =
 R3 = R4 = R6 = OH, R2 = isopentyl, R5 = MeO). At 100 mg/kg, p.o., in rats, a
 similarly prepared chalcone derivative I (X = Y = H, R1 = HO₂CCH₂O, R2 =
 isopentyl, R3 = R6 = MeO, R4 = R5 = R7 = H) (VI) gave 93% inhibition
 against rat stomach ulcer induced by 1 mL EtOH, p.o. At >1 g/kg,
 p.o., II and/or III caused no death in rats. An injection liquid as an ulcer
 inhibitor was formulated by mixing 7.5 g VI, 150 mL polysorbate 80, and

10/581,034

4.85 L physiolog. saline solution
IT 112772-81-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as ulcer inhibitor)
RN 112772-81-3 CAPLUS
CN 2-Propen-1-one, 3-(4-hydroxyphenyl)-1-[2,4,6-trihydroxy-3-(3-methylbutyl)phenyl]- (9CI) (CA INDEX NAME)



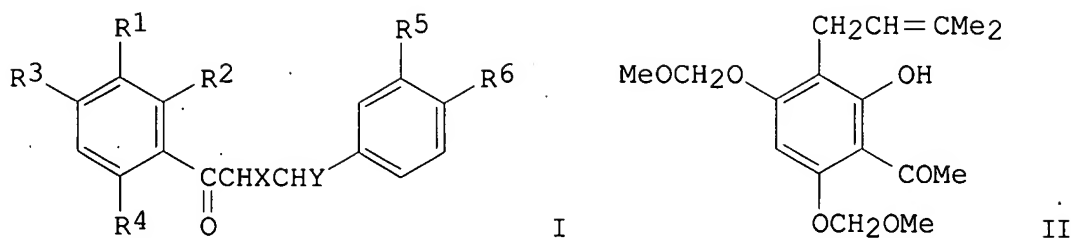
IC C07C049-82; C07C049-84; C07C059-70; C07C069-21
CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 1, 63
IT 60-82-2P 13745-20-5P 73692-51-0P 112772-63-1P 112772-65-3P
112772-66-4P 112772-67-5P 112772-69-7P 112772-71-1P
112772-73-3P
112772-74-4P 112772-76-6P 112772-78-8P 112772-79-9P
112772-80-2P
112772-81-3P 112772-82-4P 118055-95-1P 118055-96-2P
118055-98-4P 118056-01-2P 118056-04-5P 118056-07-8P
118056-08-9P
118056-09-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as ulcer inhibitor)

L16 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:74984 CAPLUS
DOCUMENT NUMBER: 108:74984
TITLE: Preparation of chalcone derivatives as
hyaluronidase

inhibitors
INVENTOR(S): Hosaka, Kunio; Chin, Masao; Mihashi, Hiroshi
PATENT ASSIGNEE(S): Tsumura Juntendo, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62185037	A	19870813	JP 1986-26775	19860212
PRIORITY APPLN. INFO.:			JP 1986-26775	19860212

GI



AB Chalcone derivs. (I; R1 = isoprenyl, isopentyl, H; R2 = H, OH, AcO, HO2CCH2O, MeO2CCH2O; R3 = OH, MeO, PhCH2O; R4 = H, OH, MeO, PhCH2O; R5 =

= H, OH, MeO, Me2CHCH2; R6 = OH, MeO; X, Y = H, XY = bond), useful as hyaluronidase inhibitors; are prepared Condensation of acetophenone derivative

II with p-MeOCH2OC6H4CHO over MeONa-MeOH gave 88.2% chalcone derivative I (R1

= isoprenyl, R2 = OH, R3 = R4 = R6 = MeOCH2O, R5 = H, XY = bond), which was refluxed in HCl-MeOH to give 27% hydroxy derivative I (R1 =

isoprenyl; R2 = R3 = R4 = R6 = OH; R5 = H; XY = bond), which inhibited hyaluronidase

by

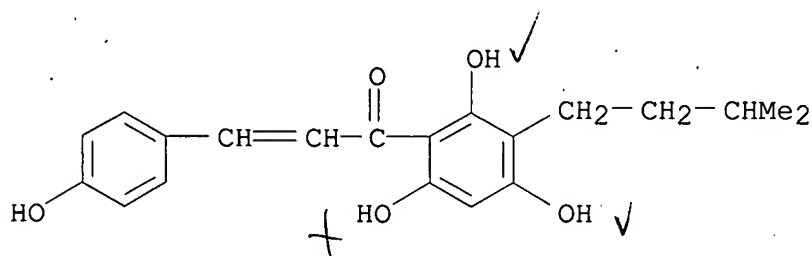
88.3% at 1.0 g/mL.

IT 112772-81-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hyaluronidase inhibitor)

RN 112772-81-3 CAPLUS

CN 2-Propen-1-one, 3-(4-hydroxyphenyl)-1-[2,4,6-trihydroxy-3-(3-methylbutyl)phenyl]- (9CI) (CA INDEX NAME)



IC ICM C07C049-83

ICS C07C049-84; C07C059-70; C07C069-14

ICA A61K031-12; A61K031-19; A61K031-22; C12N009-99

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 1

IT 57765-66-9P 100634-10-4P 112772-73-3P 112772-74-4P 112772-75-5P

112772-76-6P 112772-77-7P 112772-78-8P 112772-79-9P

112772-80-2P

112772-81-3P 112772-82-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as hyaluronidase inhibitor)

L16 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1961:105840 CAPLUS

DOCUMENT NUMBER: 55:105840

ORIGINAL REFERENCE NO.: 55:19917e-i

TITLE: An experimental contribution to the study of the
isomerization of α,β and
 β,γ -unsaturated ketones

AUTHOR(S): Anteunis, M.

SOURCE: Verhandel. Koninkl. Vlaam. Acad. Wetenschap.,
Belg.,

Kl. Wetenschap. (1960), 22(No. 64), 1-86

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The mechanism of the isomerization of α,β and
 β,γ -unsatd. ketones in the presence of bases as described by
Ingold, et al. (CA 20, 2823), was verified when the hindered
1-phenyl-2,2,3-trimethylbut-3-en-1-one, b1 90°, did not isomerize
in 5N NaOH in aqueous alc. With its explanation of a pos. β -C this
mechanism agreed also with the observation of OH addns. to
 α,β -unsatd. ketones sometimes followed by a "retrograde aldol
condensation." In this work β -addition converted chalcones to
flavanones, but only if the chalcones had multiple phenolic OH groups.
4-Benzyloxy-2',4'-dihydroxy-6'-methoxychalcone (I), m. 216-18°, was
treated with 5% KOMe solution for 5 min. After evaporation of the
solvent,

unreacted I was removed by hot extraction with Et₂O, and the residue
was

recrystd. from aqueous Me₂CO to give the corresponding flavanone,
2-(p-benzyloxyphenyl)-5-methoxy-7-hydroxy-4-chromone (II), m.
202-3°. At the m.p. II reverted to I. Xanthohumol (CA 51, 14706a;
52, 7243d) in 2-5% NaOH solution gave the expected flavanone,

isoxanthohumol,

m. 198°, in 95% yield. Attempts to repeat this ring closure with
2'-hydroxychalcone (isomeric mixture), m. 100-45°, and
2'-hydroxy-5'-methylchalcone, m. 142-3°, failed. An attempt to
prepare bicoumarinyl by the method of Dyson and Fittig [Ann. 225,

275(1889)]

from salicylaldehyde and Na succinate gave a 15% yield with a balance
of

1,4-bis(o-hydroxyphenyl)butadiene-2,3-dicarboxylic anhydride, m.
330° (PhMe); the separation was carried out in CHCl₃. An analogous
reaction with o-methoxybenzaldehyde produced 1,4-bis(o-
methoxyphenyl)butadiene, m. 118° (C₅H₆-isooctane), in 8.5% yield
and 1,4-bis(o-methoxyphenyl)butadiene-2-carboxylic acid, m. 179-80°
(C₆H₅-isooctane).

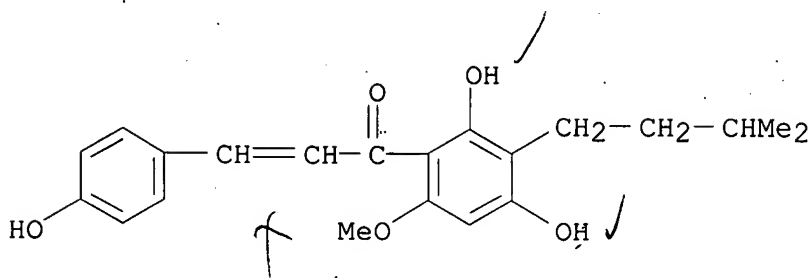
IT 102447-96-1P, Chalcone, 2',4,4'-trihydroxy-3'-isopentyl-6'-methoxy-
RL: PREP (Preparation)

(preparation of).

RN 102447-96-1 CAPLUS

10/581,034

CN Chalcone, 2',4,4'-trihydroxy-3'-isopentyl-6'-methoxy- (6CI) (CA INDEX NAME)



CC 10G (Organic Chemistry: Heterocyclic Compounds)

IT 708-53-2P, Acetophenone, 2',3'-dihydroxy-4'-methoxy- 2243-53-0P,
3-Butenoic acid, 4-phenyl- 4168-01-8P, 3-Butenoic acid,

2,2,3-trimethyl-

13389-88-3P, Succinic acid, (α-hydroxybenzyl)-, γ-lactone

23783-79-1P, 3,3'-Bicoumarin 38641-96-2P, 1,3-Butadiene,

1,4-bis(o-methoxyphenyl)- 96169-02-7P, Propiophenone,

2',4'-dihydroxy-3-(p-hydroxyphenyl)-3'-isopentyl-6'-methoxy-

100612-23-5P, 2-Pentenophenone, 2'-hydroxy-4,4'-dimethyl-

101109-98-2P,

3-Butenoic acid, 4-phenyl-, phenyl ester 102447-96-1P, Chalcone,

2',4,4'-trihydroxy-3'-isopentyl-6'-methoxy- 102448-00-0P,

Propiophenone,

2',4'-dihydroxy-3-(p-hydroxyphenyl)-6'-methoxy-3'-(3-methyl-2-butenyl)-

109690-85-9P, Cinnamic acid, o-methoxy-α-(o-methoxystyryl)-

111385-02-5P, Succinic anhydride, disalicylidene- 112599-37-8P,

Flavanone, 4'-(benzyloxy)-7-hydroxy-5-methoxy- 852638-51-8P, Flavone,

4',7-dihydroxy-5-methoxy-8-(3-methyl-2-butenyl)- 857402-56-3P,

Flavone,

4',7-dihydroxy-8-isopentyl-5-methoxy-

RL: PREP (Preparation)

(preparation of)

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

96.31

451.96

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-13.26

-13.26

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